➤ EB405
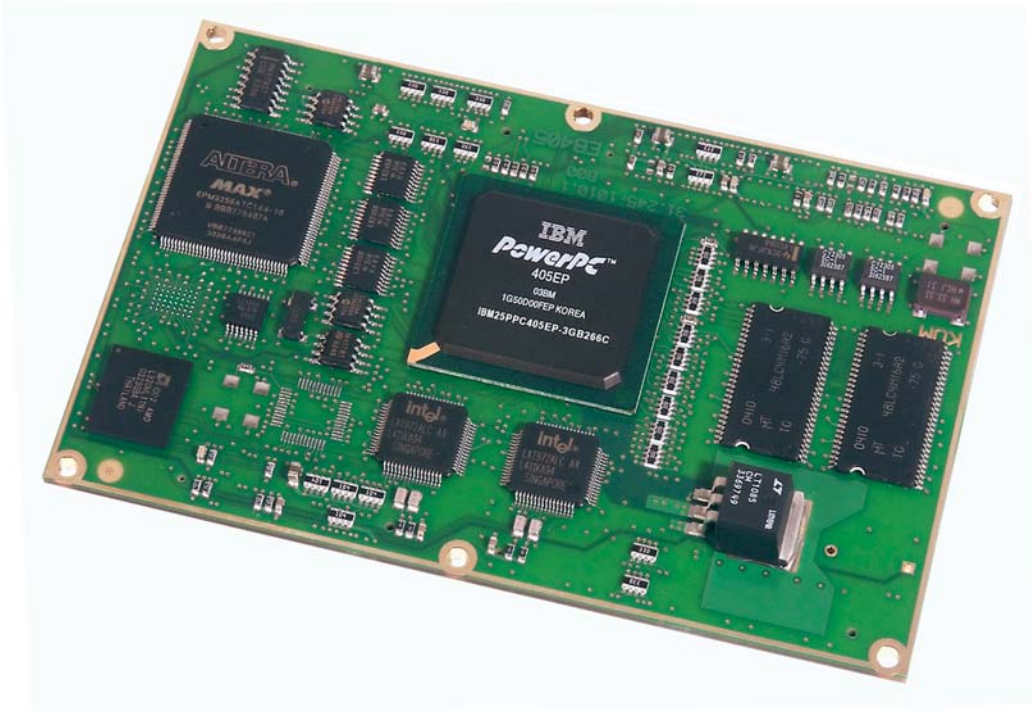# 405EP PowerPC

E²BRAIN *the intelligent module*

➤ Optimized Balance
The EB405, built around the AMCC 405EP delivers an optimized balance of performance, low power and features.

➤ Rich Mix Of Features
Cost optimized to the max, but still a complete E²Brain Computer-On-Module, the EB405 provides a comprehensive set of features including Dual Fast Ethernet.

➤ Open Standard
Take advantage of the open E²Brain standard assuring compatibility, upgradability and easy deployment.

If it's Embedded, it's Kontron.

kontron

EB405

► Product Overview

The EB405 is designed to provide a flexible, fast time-to-market solution to satisfy the demands of cost sensitive embedded applications.

Optimized Balance

Built around the AMCC 405EP PowerPC, the EB405 is a perfect solution for embedded computing appliances with constraints on power consumption and cooling, but still requiring an optimized balance of performance and features.

Rich Mix Of Features

As a complete E²Brain Computer-On-Module, the EB405 provides a comprehensive set of features including PCI, LPC, I²C, Dual Fast Ethernet, serial interfaces, RTC, watchdog and GPIO pins, fulfilling the needs of all kinds of embedded computing devices.

Open Standard

The E²Brain Computer-On-Module family based on an open standard offers a bunch of advantages like scalability and upgradability, paving the way for shorter time-to-market for all kind of embedded computing appliances.

Processor

Integrated PowerPC microprocessor AMCC 405EP @ 266 MHz
404 Dhrystone (2.1) MIPS at 266 MHz

Memory

16/64 MB SDRAM (133MHz); (up to 256 MB SDRAM possible)
4/8 MB soldered Flash; (up to 32 MB possible)
64 kBit EEPROM for user settings

Additional onboard devices

Real time clock with backup by auxiliary power supply, watchdog

System interface

PCI Master/Agent interface, 32 Bit address/data, 33/66 MHz, LPC (Low Pin Count) interface (no DMA) for I/O extensions, I²C, JTAG/BDM interface, 2 Terminal ports (Rx/Tx only), Utility port (LEDs, Reset, Abort), CompactFlash (IDE) interface

I/O interface

Dual Fast Ethernet Interface 10/100Base-Tx with autosensing and onboard PHY
2/4 high-speed serial ports (16550 compatible)
15 general purpose I/O (GPIO) pins

Software support

Operating system independent boot loader with network support
VxWorks board support package
Linux board support packages

Power consumption

typ. 4W at 3,3V (266 MHz, 4 MB Flash, 16 MB DDR-SDRAM)

Common

Mechanical Conformance:	E²Brain Module Specification Rev. 0.2
Dimension:	115 mm x 75 mm (E²Brain card size)
Temperature Ranges:	0 °C to + 70 °C (standard)
	−40 °C to +85 °C (extended)
Operation Humidity Range:	93% RH at 40 °C, non-condensing
	(acc. to IEC 60068-2-78)
Weight:	47 g
MTBF:	337,975h (acc. MIL-HDBK-217F)

► Ordering Information

Product	Description	Order No.
EB405	E²Brain PowerPC module with AMCC 405EP @ 266MHz, 16MB SDRAM, 4MB Flash, Dual Ethernet, 2 serial ports	28163
EB405	E²Brain PowerPC module with AMCC 405EP @ 266MHz, 64MB SDRAM, 8MB Flash, Dual Ethernet, 4 serial ports	28164
EB405-E2	E²Brain PowerPC module with AMCC 405EP @ 266MHz, 16MB SDRAM, 4MB Flash, 2 serial ports, ext. temperature range	28391
KIT-EB405	EB405 documentation on CD-R [1]	28392
VXW-BSP-EB405	VxWorks Board Support Package for WindRiver Workbench	28393
LIN-BSP-EB405	Linux Board Support Package, distribution independent package with cross toolchain and root file system	29394
EB405-EVALKIT	Evaluation kit for EB405, contains EB405 (64MB SDRAM, 8MB Flash), evaluation carrier board, power supply, cabling, pre-installed Linux BSP, CD-ROM with documentation and Linux software	28395
	1) KIT-EB405 downloadable from the Internet free of charge	

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